

Special Issue

Research of Corrosion Behavior of Metallic Materials

Message from the Guest Editor

Many metallic materials experience corrosion issues during their use, which usually causes gradual degradation. In 2016, this cost the U.S. economy over \$1.1 trillion. Among the various approaches used to prevent and/or reduce corrosion issues, including coatings, utilizing high corrosion resistance alloys could be an option. High corrosion resistant alloys such as titanium alloys and stainless steels have been used in corrosive environments, because of their excellent corrosion resistance. Their notable performance arises from the native oxide of only a few nanometers that is formed on the alloys' surface. However, they still have a risk of corrosion when exposed to corrosive environments. Alloy design is commonly applied for improving the corrosion resistance of metallic materials. With technical innovations, corrosion issues become more serious because of the combinations of various materials. This means more concern is needed in order to manipulate corrosion problems. This Special Issue invites manuscripts in the following disciplines of corrosion, but not limited to the list. Any manuscripts regarding the corrosion of metallic materials are welcome.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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